

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently Amended) A transmitter for transmitting in a network comprising the transmitter and at least one receiver<sub>1</sub> wherein the transmitter is arranged to synchronise to a common time reference having distinguishable instances, the transmitter comprising:

means for reading a real time clock at an identified instance of the common time reference; and

means for transmitting an identification of the real time clock value for a first instance and an identification of the first instance.

2. (Currently Amended) A transmitter as claimed in claim 1<sub>1</sub> further comprising means for calculating the real time clock value at the first instance by adding the time difference between the first instance and the identified instance to the real time clock value at the identified instance to obtain the real time clock value for the first instance.

3. (Currently Amended) A transmitter as claimed in claim 1<sub>1</sub> wherein the first instance is in the past at the moment of transmission.

4. (Currently Amended) A transmitter as claimed in claim 1<sub>1</sub> wherein the first instance is in the future at the moment of transmission.

5. (Currently Amended) A transmitter as claimed in claim 1<sub>1</sub> wherein the identified instance and the first instance are one and the same.

6. (Currently Amended) A transmitter as claimed in claim 1<sub>1</sub> further comprising a synchronisation controller for maintaining the common time reference.

7. (Original) A transmitter as claimed in claim 1, arranged to communicate in accordance with the Bluetooth Standard, wherein Link Level synchronisation provides the common time reference.

8. (Original) A transmitter as claimed in claim 1, arranged to communicate in accordance with the Bluetooth Standard, wherein the identification of the real time clock value and the identification of the first instance are transmitted as a Link Manager Message.

9. (Original) A transmitter as claimed in claim 1, arranged to communicate in accordance with the Bluetooth Standard, wherein the instances of the common time reference are synchronous with the frequency hopping of the network.

10. (Currently Amended) A transmitter as claimed in claim 1, wherein the first instance is identified by using a frame/slot number.

11. (Currently Amended) A transmitter as claimed in claim 10, wherein the occurrence of the instance within the identified slot/frame is predetermined.

12. (Currently Amended) A transmitter as claimed in claim ~~11~~ 10, wherein occurrence of the instance within the identified slot/frame is determined by the transmission of a message.

13. (Currently Amended) A transmitter as claimed in claim 1, further comprising an interface for connection to a Real Time Clock or Real Time application.

14. (Original) A transmitter as claimed in claim 1 arranged for asynchronous transmission of the identification of the real clock value and of the identification of the first instance.

15. (Original) A media device such as a speaker, microphone, screen, camera or computer comprising a transmitter as claimed in claim 1.

16. (Currently Amended) A receiver for receiving in a network comprising at least the receiver and a transmitter, wherein the receiver is arranged to synchronise to a common time reference having distinguishable instances, the receiver comprising:

means for receiving a transmitted identification of a real time clock value and an identification of a first instance; and

means for determining a real time clock value, current at a second instance from the received identification of a real time clock value and the received identification of a first instance.

17. (Original) A receiver as claimed in claim 16, wherein the real time clock value is the received value, if necessary, corrected in accordance with the time difference between the first and second instances.

18. (Original) A receiver as claimed in claim 16, wherein the first instance is in the past at the moment of reception.

19. (Original) A receiver as claimed in claim 16, wherein the real time clock value determination is by calculation in which the time difference between the second and first instances is added to the received value of the real time clock.

20. (Original) A receiver as claimed in claim 16, wherein the first instance is in the future at the moment of reception.

21. (Original) A receiver as claimed in claim 16, wherein the means for determining determines that the current real time clock value is the received value when the second instance of the common time reference occurs, the second and first instances being one and the same.

22. (Currently Amended) A receiver as claimed in ~~any one of claims~~ claim 16, further comprising a synchronisation controller for maintaining the common time reference.

23. (Currently Amended) A receiver as claimed in claim 22, wherein the synchronisation controller comprises correlation means for identifying access codes preceding the payload of data packets.

24. (Currently Amended) A receiver as claimed in claim 23, wherein the synchronisation to the common time reference is updated as each packet is received .

25. (Original) A receiver as claimed in claim 22, wherein the synchronisation controller provides bit- level synchronisation of the common time reference.

26. (Original) A receiver as claimed in claim 16, arranged to communicate in accordance with the Bluetooth Standard, wherein Link Level synchronisation provides the common time reference.

27. (Original) A receiver as claimed in claim 16, arranged to communicate in accordance with the Bluetooth Standard, wherein the identification of the real time clock value and the identification of the first instance are transmitted as a Link Manager Message.

28. (Original) A receiver as claimed in claim 16, arranged to communicate in accordance with the Bluetooth Standard, wherein the first instance is identified by using a frame/slot number.

29. (Currently Amended) A receiver as claimed in claim 28, wherein the occurrence of the instance within the identified slot/frame is predetermined.

30. (Currently Amended) A receiver as claimed in claim 28, wherein occurrence of the instance within the identified slot/frame is determined by the reception of a message.

31. (Original) A receiver as claimed in claim 16, further comprising an interface for connection to a Real Time Clock or Real Time application.

32. (Original) A receiver as claimed in claim 16 arranged for asynchronous transmission of the identification of the real clock value and of the identification of the first instance.

33. (Original) A media device such as a speaker, microphone, screen, camera or computer comprising a receiver as claimed in claim 16.

34. (Currently Amended) A transceiver for operating in a network, wherein the transceiver is arranged to synchronise to a time reference common to the network having distinguishable instances, the transceiver comprising:

means for reading a real time clock at an identified local instance of the common time reference; and

means for transmitting an identification of the local real time clock value of a first instance and an identification of the local first instance; and additionally comprising:

means for receiving a transmitted identification of a distal real time clock value and an identification of a distal first instance; and

means for determining, a distal real time clock value current at a local second instance of the common time reference.

35. (Currently Amended) A transceiver for operating in a network, wherein the transceiver is arranged to synchronise to a time reference common to the network having distinguishable instances, the transceiver comprising:

means for reading a real time clock at an identified local instance of the common time reference; and

means for transmitting an identification of the local real time clock value of a first instance and an identification of the local first instance; and additionally comprising:

means for receiving a transmitted identification of a distal real time clock value and an identification of a distal first instance; and

means for determining, a distal real time clock value current at a local second instance by adding the time difference between the received distal first instance and the second local instance to the received distal real time clock value.

36. (Currently Amended) A transceiver for operating in a network<sub>i</sub> wherein the transceiver is arranged to synchronise to a time reference common to the network having distinguishable instances, the transceiver comprising:

means for reading a local real time clock at an identified local instance of the common time reference; and

means for calculating the local real time clock value at a first local instance by adding the time difference between the first local instance and the identified local instance to the local real time clock value at the identified instance to obtain the local real time clock value for the first instance; and

~~and~~ means for transmitting an identification of the local real time clock value of a first instance and an identification of the local first instance; and additionally comprising:

means for receiving a transmitted identification of a distal real time clock value and an identification of a distal instance; and

means for determining that the current distal real time clock value is the received distal real time clock value when the distal instance of the common time reference occurs locally.

37. (Currently Amended) A transceiver for operating in a network<sub>i</sub> wherein the transceiver is arranged to synchronise to a time reference common to the network having distinguishable instances, the transceiver comprising:

means for reading or writing a real time clock at an identified instance of the common time reference;

means for transmitting an identification of the real time clock value of a first instance and an identification of the first instance; and ~~additionally comprising~~

means for receiving a transmitted identification of a real time clock value and an identification of a first instance.

38. (Currently Amended) A method of providing real time clock information from a transmitter device to a receiver device, comprising :

synchronising the transmitter device to a time reference having distinguishable instances shared in common<sub>i</sub> with the transmitter and receiver obtaining a real time clock value at an identified instance of the common time reference; and

transmitting an identification of the real time clock value for a first instance and an identification of the first instance.

39. (Currently Amended) A method of receiving real time clock information transmitted from a transmitter device to a receiver device, comprising :

synchronising the receiver device to a time reference having distinguishable instances shared in common with the transmitter and receiver;

receiving a transmitted identification of a real time clock value and an identification of a first instance of the common reference; and

determining a real time clock value current at a second instance of the common time reference, corresponding to the received real time clock value corrected in accordance with the time difference between the first and second instances, if any.

40. (Currently Amended) A network comprising a transmitter device and at least one receiver device, wherein the transmitter and receiver devices are synchronised to a common time reference having distinguishable instances such that when an instance is measurable at one device there is simultaneously an identifiably corresponding instance measurable at the other device, the transmitter device comprising:

means for reading a real time clock at an identified instance of the common time reference; and

means for transmitting an identification of the real time clock value for a first instance and an identification of the first instance,

and the receiver device comprising:

means for receiving the transmitted identification of the real time clock value at the first instance and the identification of the first instance; and

~~and~~ means for determining, at a second instance, a current real time clock value.

41. (New) A transmitter for transmitting in a low power frequency hopping network, the low power frequency hopping network comprising the transmitter and at least one receiver, wherein the transmitter is arranged to synchronise to a

common time reference having distinguishable instances, the transmitter comprising:

means for obtaining a clock value at an identified instance of the common time reference; and

means for transmitting an identification of a first instance of the common time reference and an identification of a clock value that is valid at the first instance of the common reference.

42. (New) A receiver for receiving in a low power frequency hopping network, the low power frequency hopping network comprising at least the receiver and a transmitter, wherein the receiver is arranged to synchronise to a common time reference having distinguishable instances, the receiver comprising:

means for receiving a transmitted identification of a clock value and an identification of a first instance of the common time reference; and

means for determining a clock value, valid at a second instance of the common time reference, from the received identification of a clock value and the received identification of a first instance.

43. (New) A method of providing clock information from a transmitter to a receiver in a low power frequency hopping network, the method comprising:

synchronising the transmitter to a time reference, having distinguishable instances, shared in common with the transmitter and receiver;

obtaining a clock value at an identified instance of the common time reference; and

transmitting an identification of a clock value that is valid at a first instance and an indication of the first instance.

44. (New) A method of receiving clock information transmitted from a transmitter to a receiver in a low power frequency hopping network, the method comprising:

synchronising the receiver to a time reference, having distinguishable instances, shared in common with the transmitter and receiver;

receiving a transmitted identification of a clock value that is valid at a first instance and an indication of the first instance; and



determining a clock value, valid at a second instance of the common time reference, corresponding to the received clock value corrected in accordance with the time difference between the first and second instances, if any.